Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 to 20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 to 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>03 August 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

Drawings

1.   The drawings are objected to for the following reasons:

In Figure 1, "form editing history module" needs a label 32 (Page 8).

In Figure 1, "touch screen display" needs a label 46 (Figure 8).

A proposed drawing correction or corrected drawings are required in reply to the

Office action to avoid abandonment of the application. The objection to the drawings

will not be held in abeyance.

Specification

2.   The disclosure is objected to because of the following informalities:

On page 2, paragraph [0004], "Ishee" should be –Ishii–.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1 to 3, 6, 8 to 10, 13 to 15, 17, and 19 to 20 are rejected under 35

U.S.C. 102(b) as being anticipated by *Takebayashi et al.*

Regarding independent claim 1, *Takebayashi et al.* discloses a method of data

entry by voice, comprising:

"communicating an input utterance from a speaker to a speech recognition

means" – (column 8, lines 46 to 55: Figure 2);

"spotting a plurality of spotted words of at least one recognized spoken word

within the input utterance, wherein the spotted words form a phrase containing at least

one of field-specific values and commands" – keyword detection unit 21 (column 8, line

55 to column 9, line 22: Figure 2); keywords are received in a word lattice or frame

format ("field-specific values"), e.g. "three" "hamburgers" (column 10, lines 6 to 17:

Figure 4); keywords include commands such as "order", "cancellation", and

"replacement" commands (column 10, lines 18 to 24: Figure 5);

"echoing recognized values back to the speaker via a text-to-speech system" –

response generation unit 13 (column 7, lines 23 to 43: Figure 2; column 17, lines 61 to

65);

"rejecting unreliable or unsafe input for which a confidence measure is found to

be low" – (column 13, lines 6 to 10; column 20, lines 35 to 58; column 24, lines 18 to 44;

column 25, lines 24 to 37);

"maintaining a dialogue history enabling editing operations and correction

operations on all active fields" – (column 6, lines 50 to 57); editing operations and

correction operations include "addition", "cancellation", and "replacement" (column 10, lines 18 to 24: Figure 5).

Regarding independent claim 10, *Takebayashi et al.* discloses an article of manufacture for data entry by voice, comprising:

" an operating system" – operating system 291 (column 29, lines 49 to 56: Figure 45);

"a memory in communication with said operating system" – memory 292 (column 29, lines 29 to 56: Figure 45);

"a speech recognition means in communication with said operating system" – speech understanding unit 11 (column 6, lines 44 to 50: Figure 1);

"a speech generation means in communication with said operating system" – response generation unit 13 (column 7, lines 23 to 43: Figure 1);

"a dialogue history maintenance means in communication with said operating system" – (column 6, lines 50 to 57);

"wherein said operating system manages said memory, said speech recognition means, said speech generation means, and said dialogue history maintenance means in a manner permitting the user to monitor speech recognition of an input utterance by means of a generated speech corresponding to at least one of field-specific values and commands contained within the phrase formed by spotted words within the input utterance, and to perform editing operations and correction operations on all active fields" – keyword detection unit 21 (column 8, line 55 to column 9, line 22: Figure 2);

keywords are received in a word lattice or frame format ("field-specific values"), e.g. "three" "hamburgers" (column 10, lines 6 to 17: Figure 4); keywords include commands such as "order", "cancellation", and "replacement" commands (column 10, lines 18 to 24: Figure 5; column 6, lines 50 to 57); editing operations and correction operations include "addition", "cancellation", and "replacement" (column 10, lines 18 to 24: Figure 5).

Regarding claims 2 and 14, syntactic and semantic analysis unit 21 determines keywords by semantics (column 6, lines 44 to 50; column 9, lines 38 to 50).

Regarding claims 3 and 15, response generation unit 13 provides confirmation of orders, e.g. "Let me confirm. Your orders are one large cola and three small potatoes, right?" (column 17, lines 61 to 65; column 20, lines 35 to 43).

Regarding claims 6, 9, 17, and 20, correction commands include "cancellation" commands for deletion of a last entry, e.g. "That's Wrong" and "Cancel" (column 10, lines 18 to 24: Figure 5) and deletion confirmation (Figure 15B).

Regarding claims 8 and 19, editing operations include "replacement" commands "Rather" and "Instead" (column 10, lines 18 to 24: Figure 5) and replacement confirmation (Figure 15B).

Regarding claim 13, response generation unit 13 generates the speech response in a synthesized voice (column 7, lines 23 to 43: Figure 1).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 4, 5, 11, 12, and 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over *Takebayashi et al.* in view of *LaRue.*

Concerning claims 4 and 16, *Takebayashi et al.* omits automatic adaptation after

a form is filled in and sent for search in a database. However, it is generally well known

to provide adaptation to a user's voice for a voice recognition system during downtime

once a processing session is completed. *LaRue* teaches automatic adaptation of a

word recognition procedure to individual users. (Column 3, Lines 39 to 42; Column 10,

Lines 64 to 67; Column 13, Lines 28 to 30) It would have been obvious to one having

ordinary skill in the art to perform automatic adaptation as suggested by *LaRue* after

conclusion of an ordering session in *Takebayashi et al.* for the purpose of adapting a

voice of an individual user when the processor is not active.

Concerning claims 5, 11, and 12, *Takebayashi et al.* omits a backup input system

as a keyboard or touch screen. However, *LaRue* teaches a speech recognition system

including a keyboard and an input panel 36 to enhance the ability to communicate

audibly in a man-machine interaction. (Column 1, Lines 19 to 27: Column 4, Lines 36 to

39; Column 13, Lines 62 to 63: Figure 2) Including an additional input device in a

speech recognition system is generally well known for the purpose of providing flexibility

by permitting a plurality of modes of input. It would have been obvious to one having

ordinary skill in the art to include a backup input system as a keyboard or input panel as

taught by *LaRue* in the human-computer interaction system of *Takebayashi et al.* to

improve and enhance the flexibility of a man-machine interaction for a speech

recognition system.

7.   Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Takebayashi et al. in view of *Cornelison*.

　　　Takebayashi et al. omits letters and numbers for a license plate as field-specific

values. However, *Cornelison* teaches a parking ticket enforcement system allowing for

the search of license plates by key words of letters and numbers through voice input

from a police officer. (Column 7, Line 11 to Column 8, Line 39) This is desirable to

provide a police officer on duty the capability of conveniently and effectively determining

whether or not an observed vehicle has been associated with criminal activity. (Column

1, Lines 39 to 48) It would have been obvious to one having ordinary skill in the art to

apply the word lattice and frame format for voice data entry of *Takebayashi et al.* to

recognize letters and numbers for a license plate as taught by *Cornelison* for the

purpose of providing a police officer on duty the capability of conveniently and

effectively determining whether or not an observed vehicle has been associated with

criminal activity.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

Applicants' disclosure.

Ishii et al., Kuhn et al., and Morin et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Martin Lerner whose telephone number is (703) 308-

9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to

Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone

number for the organization where this application or proceeding is assigned is (703)

872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

4700.

ml
9/17/03

Richemond Dorvil
Primary Examiner